

Figure 6-8. Total hazard indices for worker at 100 years.

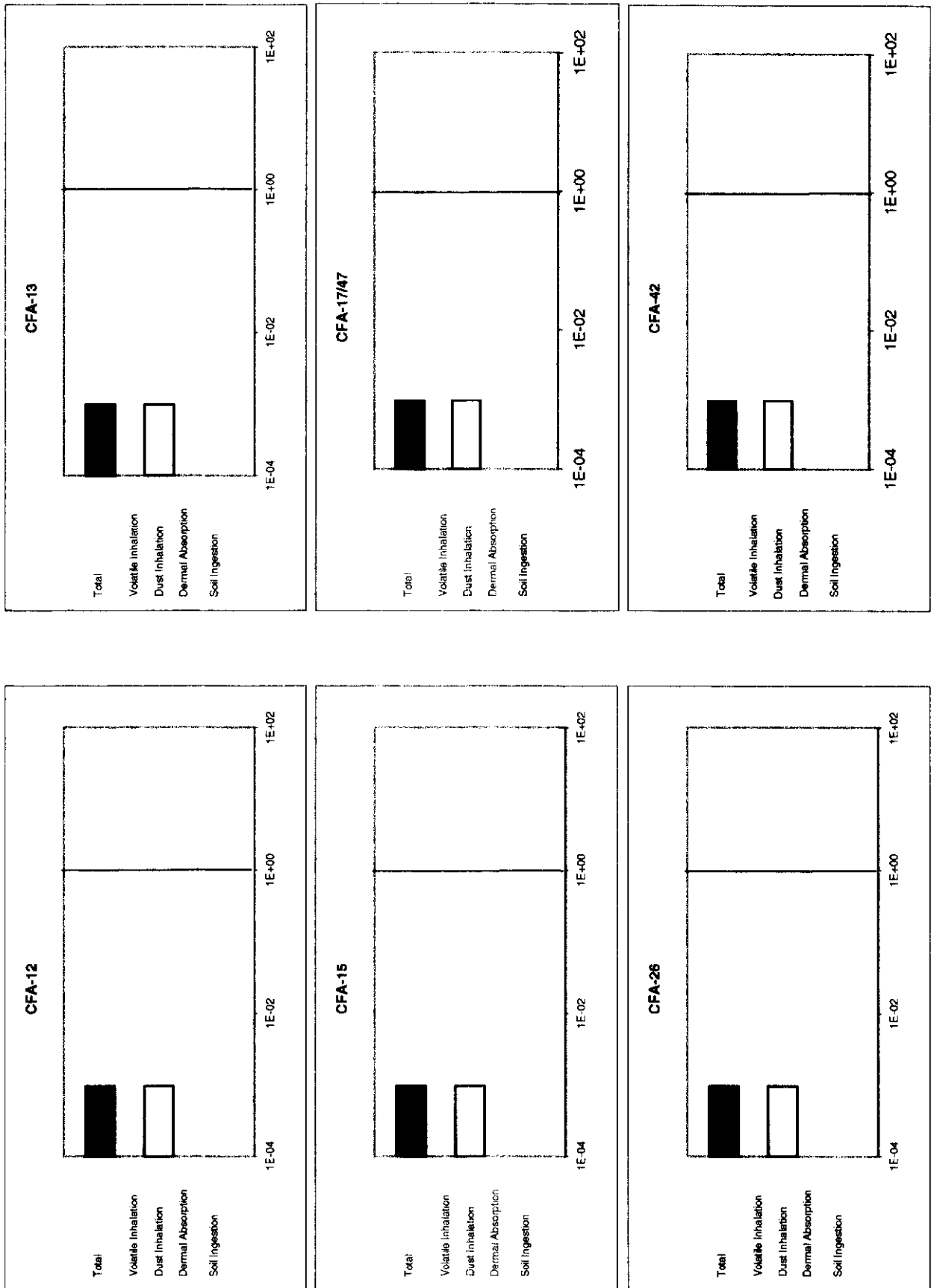


Figure 6-8. (continued).

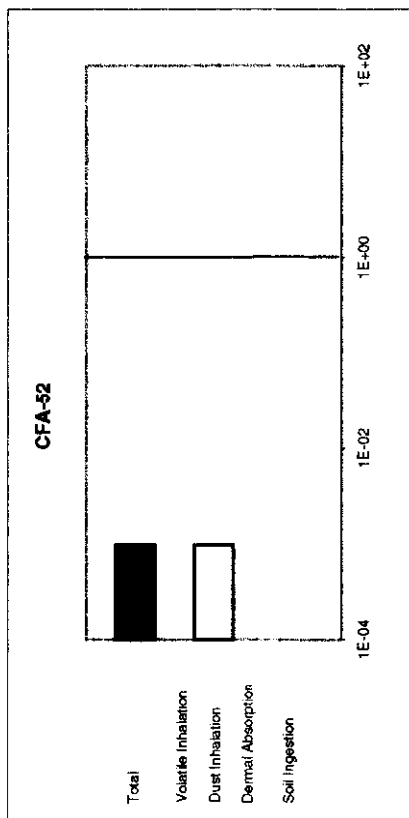
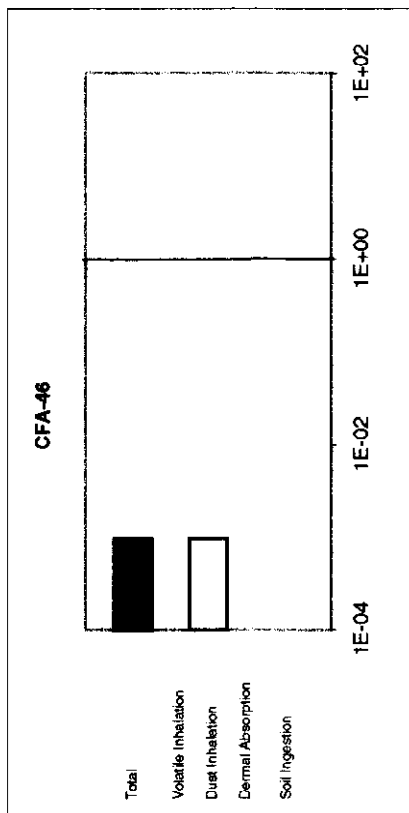


Figure 6-8. (continued).

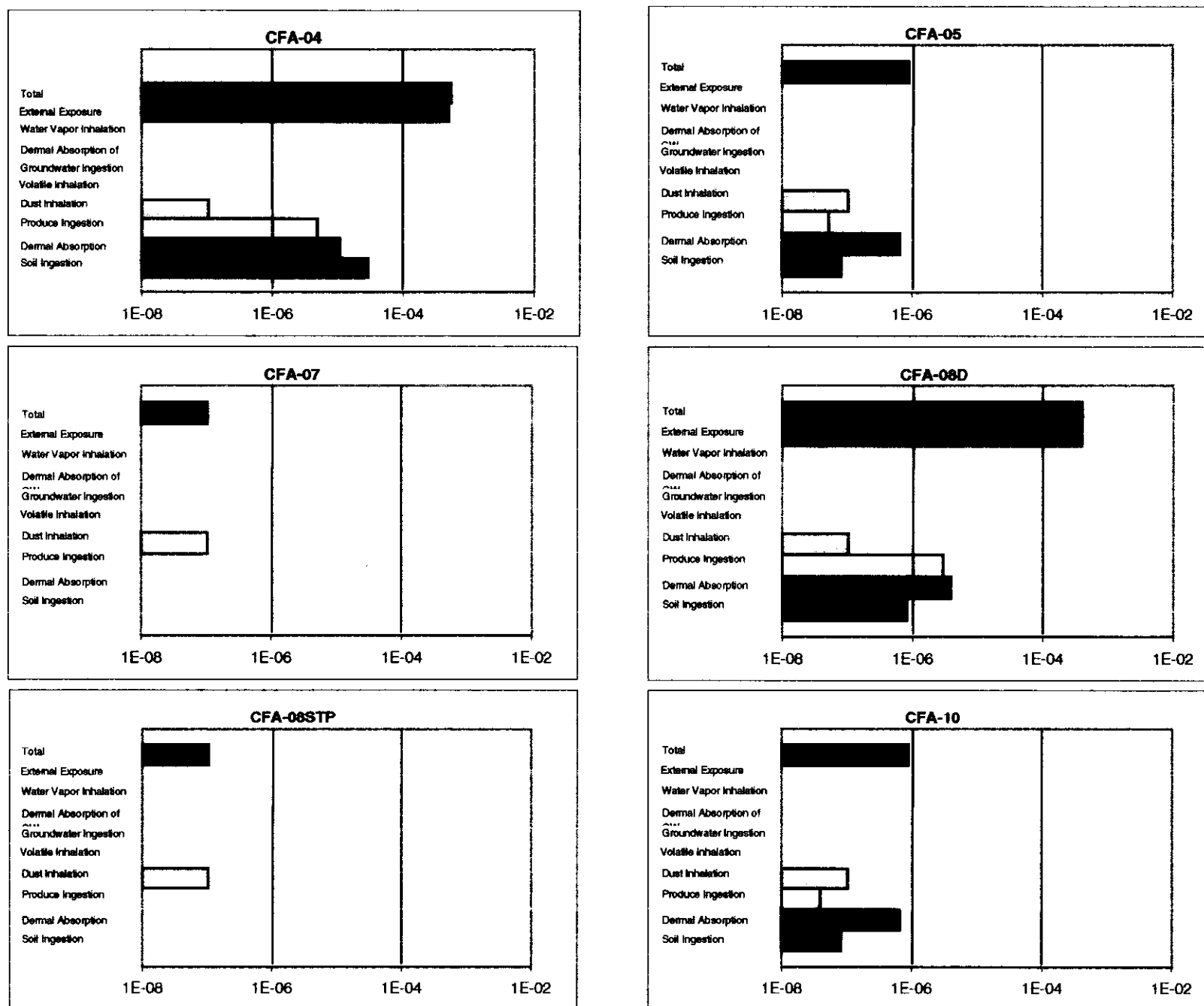


Figure 6-9. Total risk for resident at 100 years.

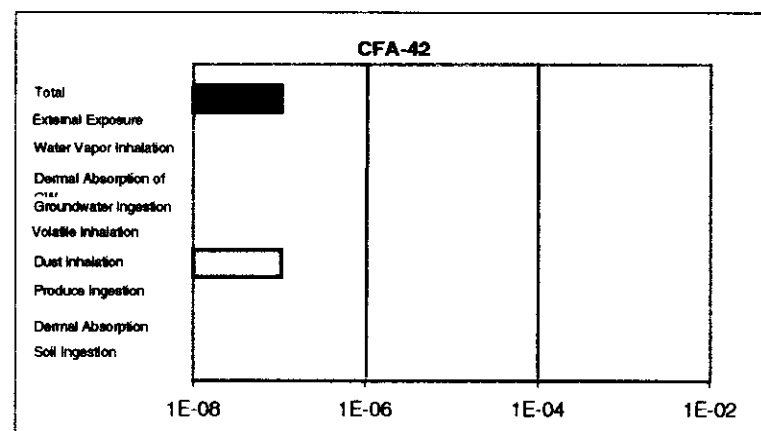
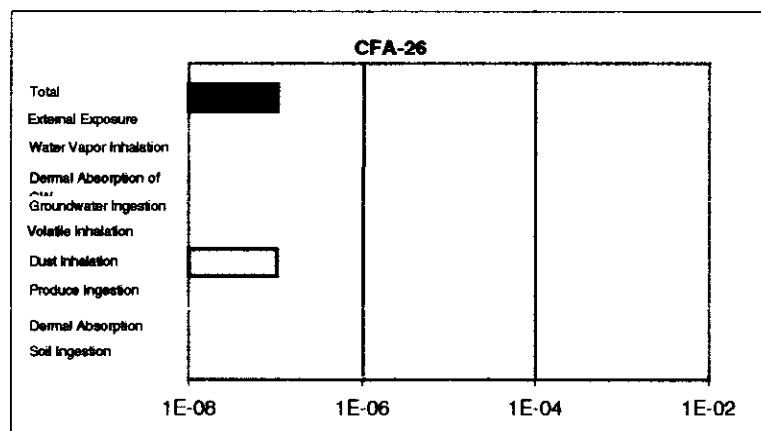
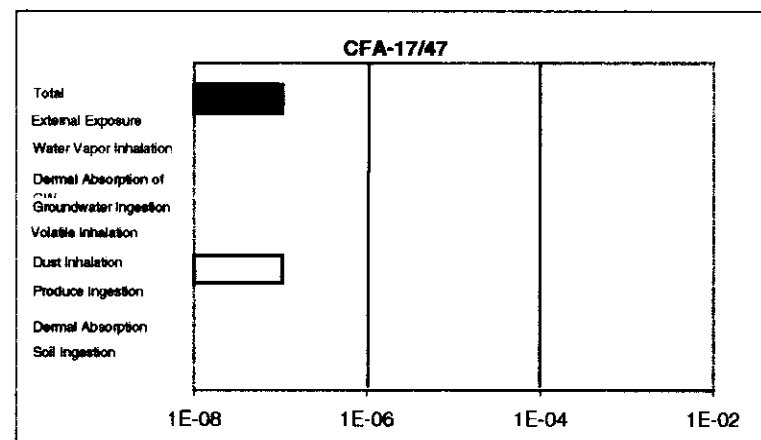
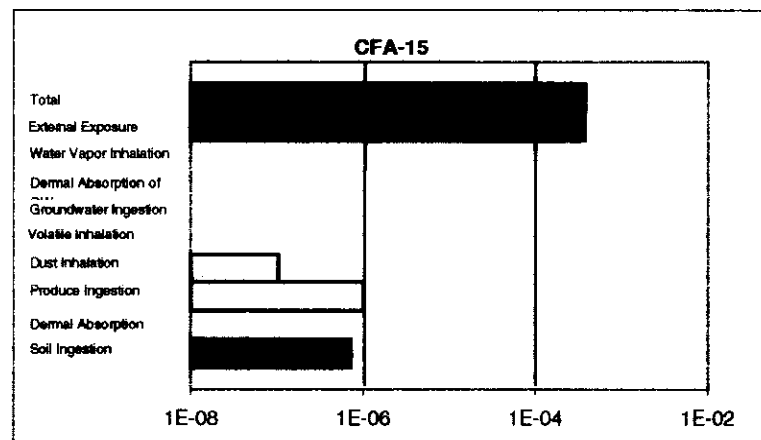
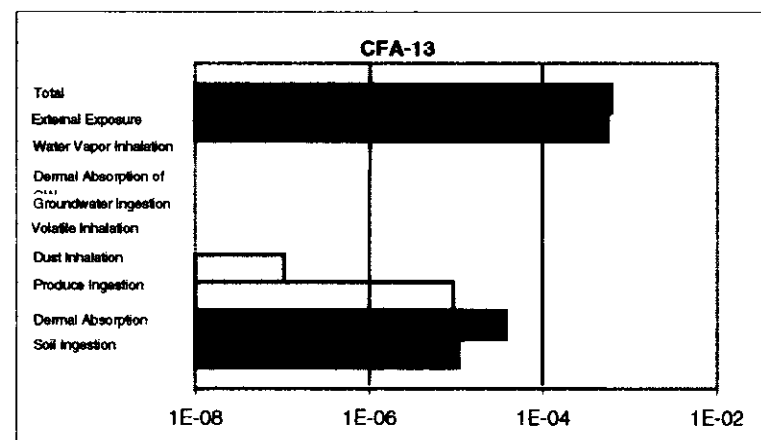
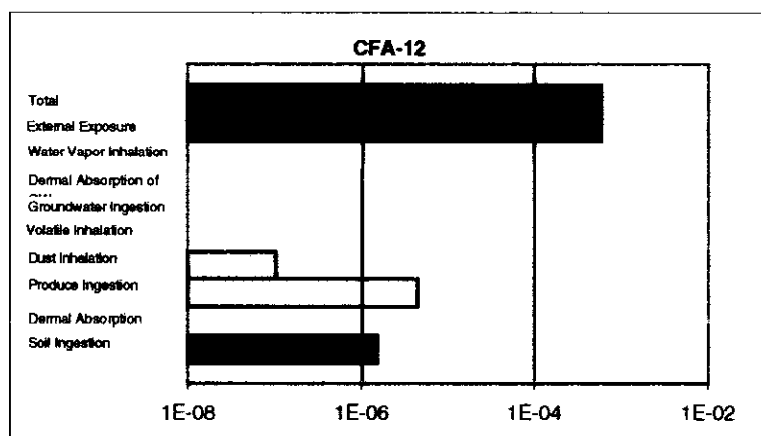


Figure 6-9. (continued).

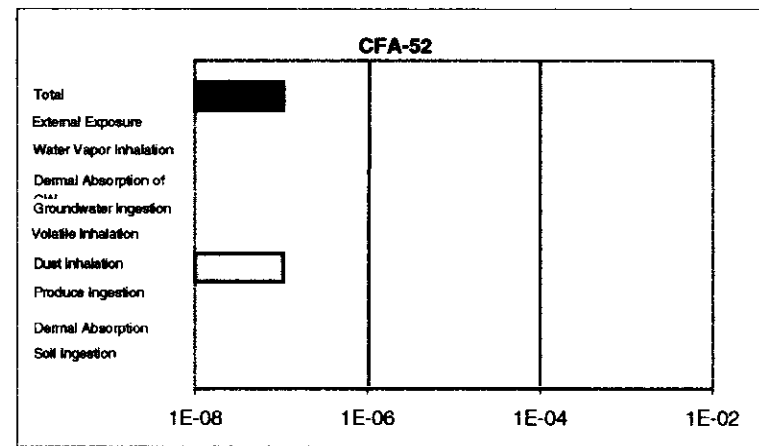
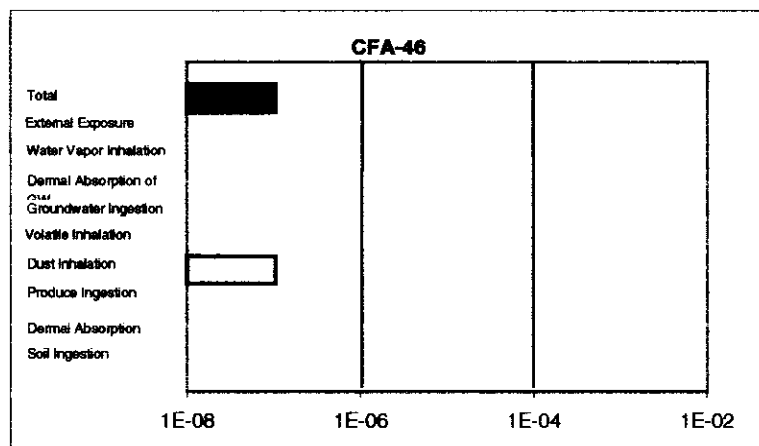


Figure 6-9. (continued).

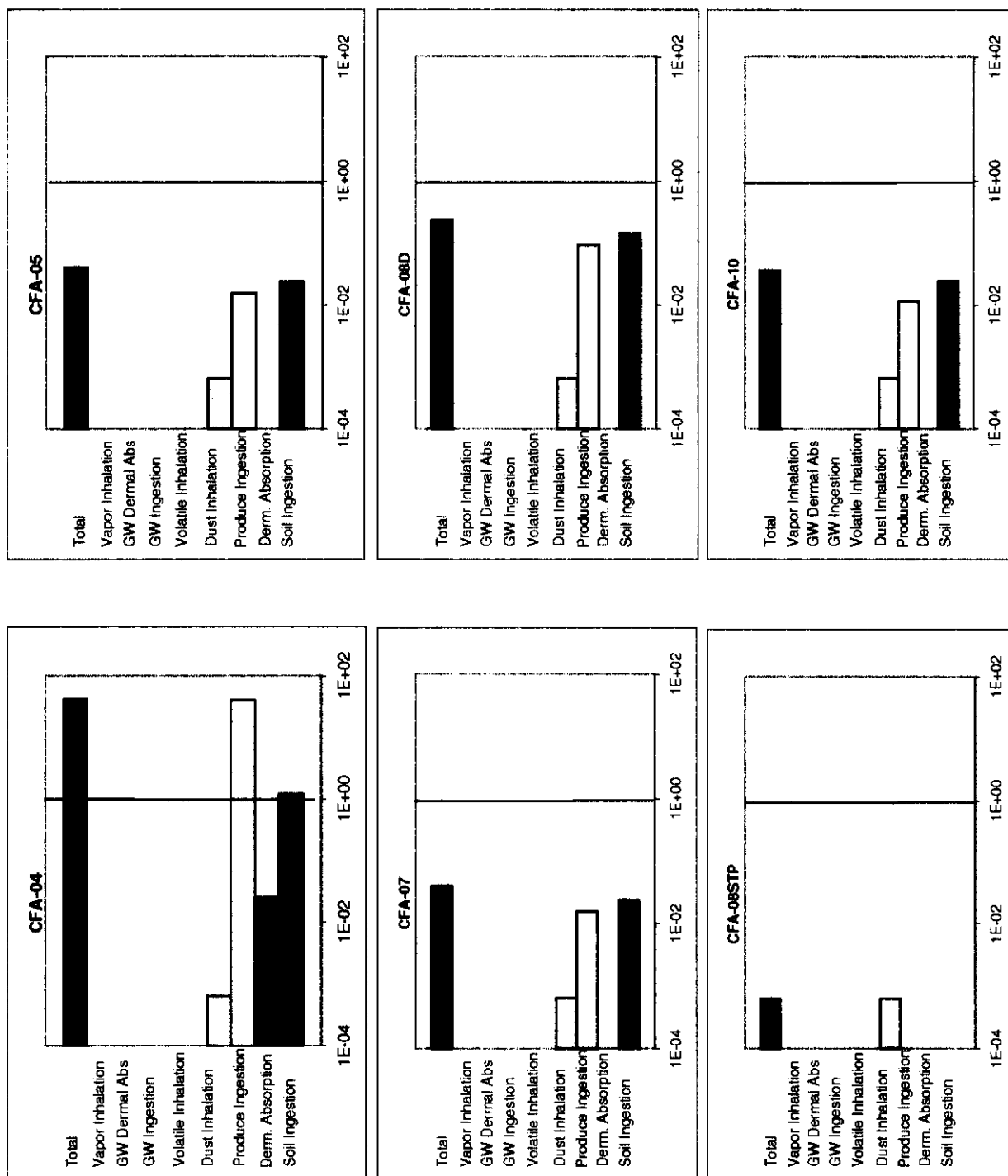


Figure 6-10. Total hazard indices for resident at 100 years.

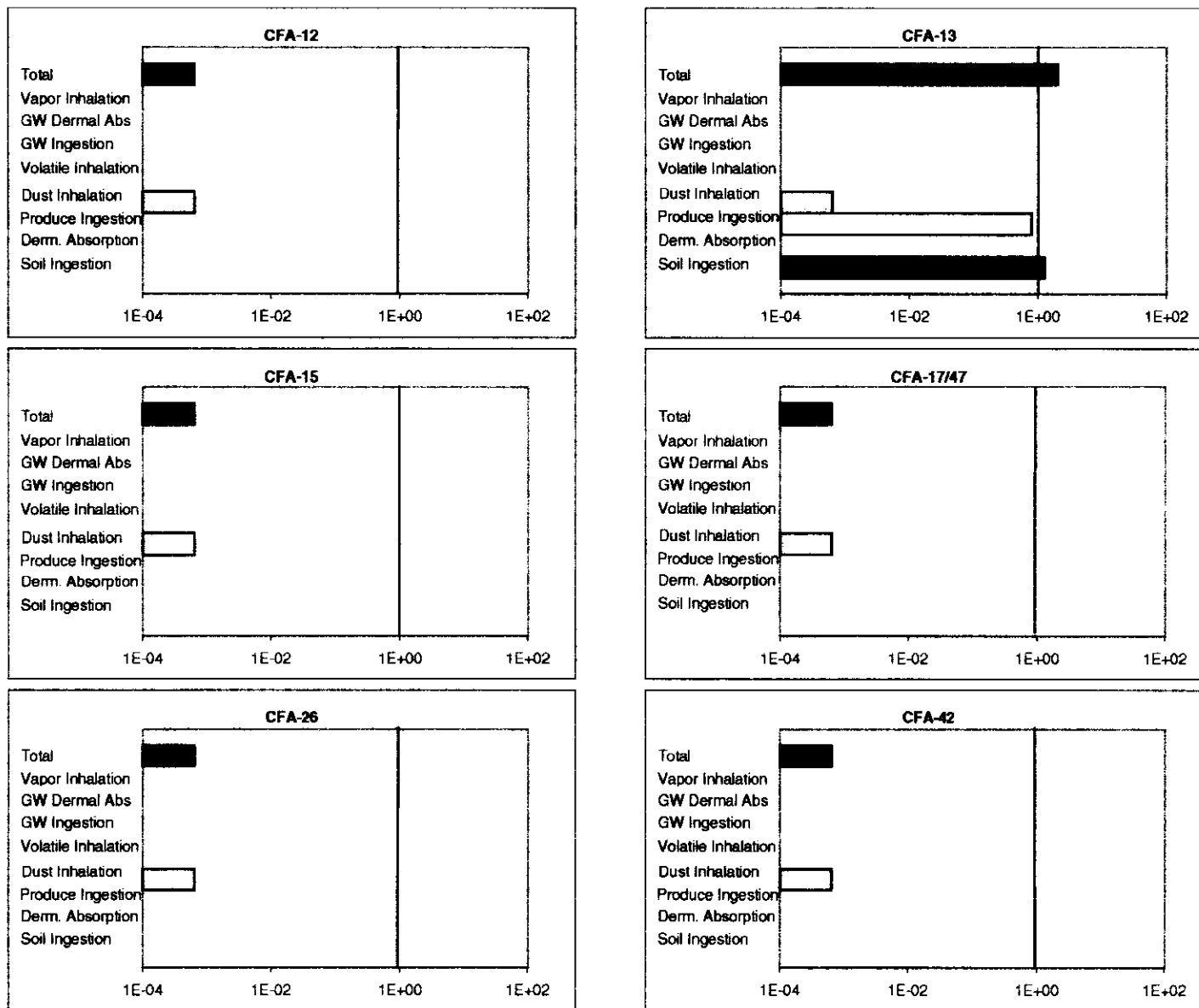


Figure 6-10. (continued).

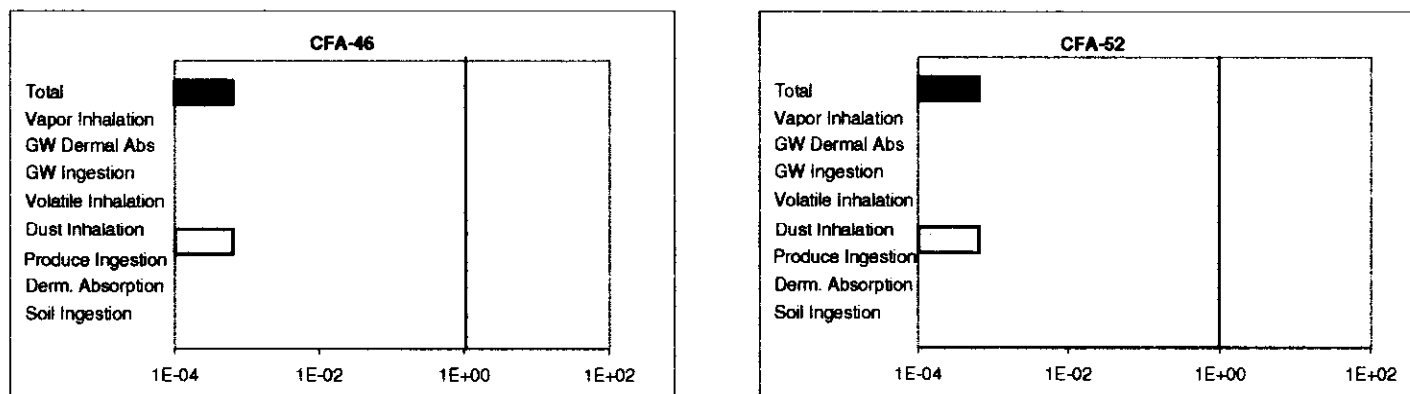


Figure 6-10. (continued).

Section 6.3.1.1, it is conservatively assumed that chemical degradation does not occur for nonradionuclides; as a result, the potential noncancer risks presented for the future occupational scenario are equivalent to those calculated for the current occupational scenario. The potential noncancer risks for these two receptors are therefore presented together. Potential risks could not be quantified for four of the COPCs identified for WAG 4 because EPA-verified toxicity values are not currently available. A qualitative risk characterization for these chemicals is presented in Section 6.5.3.

6.5.2.1.1 Cumulative Risk Results. The following sections present the results of the cumulative risk assessment for the WAG 4 air and groundwater exposure pathways. The risk results presented in this section are based on the WAG-wide risk results for the air exposure pathways (i.e., inhalation of fugitive dust, inhalation of volatiles) and the groundwater exposure pathways (i.e., ingestion of groundwater, dermal absorption of groundwater, inhalation of water vapor from indoor groundwater use).

6.5.2.1.2 Potential Cumulative Excess Cancer Risks: Current Occupational Scenario. The cumulative excess cancer risk for the current occupational worker from inhalation of airborne particulates is $6\text{E-}08$. Pu-239, U-234, and U-238 contribute to the majority of the cumulative potential inhalation risk (40 percent, 20 percent, and 20 percent, respectively). This risk level is well below the EPA acceptable excess cancer risk range of $1\text{E-}04$ to $1\text{E-}06$. Volatile COPCs were not detected in surface soils (i.e., soils from 0 to 0.5 ft bgs); therefore, cumulative current risks are not assessed for inhalation of volatiles.

6.5.2.1.3 Potential Cumulative Excess Cancer Risks: Future Occupational Scenario. The cumulative excess cancer risk for the future occupational worker from inhalation of airborne particulates is $6\text{E-}08$. Pu-239, U-234, and U-238 contribute to the majority of the cumulative potential inhalation risk (40 percent, 20 percent, and 20 percent, respectively). This risk level is well below the EPA acceptable excess cancer risk range of $1\text{E-}04$ to $1\text{E-}06$. Volatile COPCs were not detected in surface soils (i.e., soils from 0 to 0.5 ft bgs); therefore, cumulative future risks are not assessed for inhalation of volatiles.

6.5.2.1.4 Potential Cumulative Excess Cancer Risks: Future Residential Scenario. The cumulative excess cancer risk for the future resident from inhalation of airborne particulates is $1\text{E-}07$. Arsenic, U-234, and U-238 contribute to the majority of the cumulative potential inhalation risk (55 percent, 16 percent, and 17 percent, respectively). This risk level is well below the EPA acceptable excess cancer risk range of $1\text{E-}04$ to $1\text{E-}06$.

The cumulative excess cancer risk from inhalation of volatiles could not be quantified because toxicity data are not currently available for the one volatile COPC that was detected in soils from 0 to 10 ft bgs (i.e., phenanthrene). A qualitative assessment of potential risks from exposure to phenanthrene is presented in Section 6.5.3.

The cumulative excess cancer risk from exposure to groundwater for the future residential scenario is $2\text{E-}09$. As shown in Section 6.3.3.3, groundwater modeling results indicate that Eu-152, chlorodifluoromethane, and phenol are the only COPCs that expected to arrive at the hypothetical receptor well location at the 100- to 130-year exposure period. Of these COPCs, potential carcinogenic effects are only associated with Eu-152.

6.5.2.1.5 Potential Cumulative Noncancer Risks: Current and Future Occupational Scenario. The cumulative HI for the current occupational worker from inhalation of airborne particulates is 0.001. This HI is well below the EPA threshold HI of 1.0. Mercury contributes to

all of the HI estimate. Volatile COPCs were not detected in surface soils (i.e., soils from 0 to 0.5 ft bgs); therefore, cumulative noncancer risks are not assessed for inhalation of volatiles.

6.5.2.1.6 Potential Cumulative Noncancer Risks: Future Residential Scenario.

The cumulative HI for the future resident from inhalation of airborne particulates is 1E-03. This HI is well below the EPA threshold HI of 1.0. Mercury contributes to all of the HI estimate. The total noncancer risk from inhalation of volatiles could not be quantified because no toxicity data are available for the one volatile COPC that was detected in soils from 0 to 10 ft bgs (i.e., phenanthrene). A qualitative assessment of potential noncancer risks from exposure to phenanthrene is presented in Section 6.5.3.

6.5.2.2 Site-specific Risk Results. The following sections present the site-specific risk results for WAG 4. The risk results presented for each site include risk results for site-specific exposure pathways (i.e., incidental soil ingestion, dermal contact with soil, ingestion of homegrown produce) and risk results for the WAG-wide exposure pathways (i.e., inhalation of particulates, inhalation of volatiles, groundwater ingestion, dermal contact with groundwater, and inhalation of water vapor from indoor groundwater use).

6.5.2.2.1 Potential Excess Cancer Risks: Current Occupational Scenario.

Table D-43 presents the site-specific excess cancer risk estimates for the current occupational worker. Risk estimates are shown for each retained site and for each potentially complete exposure pathway identified for the current occupational worker. Potential risks estimated for this receptor at each retained site are discussed in the sections below.

6.5.2.2.1.1 CFA-04. The total excess cancer risk for the current occupational worker is 9E-06, or nine in one million (Table D-43). This risk level is well within the EPA acceptable excess cancer risk range of 1E-04 to 1E-06. Most of the total excess cancer risk at CFA-04 is associated with three exposure pathways: soil ingestion, dermal contact with soil, and external radiation exposure. These pathways contribute roughly 24, 13, and 63 percent, respectively, to the total risk estimate. Almost all of the risk associated with the two soil pathways is attributable to arsenic. Almost all of the risk associated with the external radiation exposure pathway is attributable to Cs-137.

As discussed in Sections 4.1.3 and 6.2.3, arsenic is not associated with known waste producing processes at WAG 4; however, arsenic is retained as a COPC for CFA-04 because the maximum detected concentration slightly exceeds the range of measured background concentrations at the INEEL. Past waste producing activities at CFA-04 may have resulted in concentrating naturally occurring levels of arsenic at this site; potential risks from arsenic estimated for this site are likely attributable to background levels.

6.5.2.2.1.2 CFA-05. The total excess cancer risk for the current occupational worker is 6E-08, or six in one hundred million (Table D-43). This risk level is well below the EPA acceptable excess cancer risk range of 1E-04 to 1E-06. The risk estimate for CFA-05 is based on the site-wide risk estimate for inhalation of particulates.

6.5.2.2.1.3 CFA-07. The total excess cancer risk for the current occupational worker is 6E-08, or six in one hundred million (Table D-43). This risk level is well below the EPA acceptable excess cancer risk range of 1E-04 to 1E-06. The risk estimate for CFA-07 is based on the site-wide risk estimate for inhalation of particulates.

6.5.2.2.1.4 CFA-08D. The total excess cancer risk for the current occupational worker is 2E-03, or two in one thousand (Table D-43). This risk level exceeds the EPA acceptable excess cancer

risk range of $1\text{E-}04$ to $1\text{E-}06$. Almost all (greater than 99 percent) of the risk estimated for CFA-08D is attributable to external radiation exposure to Cs-137 in soil. This risk estimate indicates that under the current exposure scenario (i.e., occupational), remediation is warranted for CFA-08D.

6.5.2.2.1.5 CFA-08STP. The total excess cancer risk for the current occupational worker is $6\text{E-}08$, or six in one hundred million (Table D-43). This risk level is well below the EPA acceptable excess cancer risk range of $1\text{E-}04$ to $1\text{E-}06$. The risk estimate for CFA-08STP is based on the site-wide risk estimate for inhalation of particulates.

6.5.2.2.1.6 CFA-10. The total excess cancer risk for the current occupational worker is $6\text{E-}08$, or six in one hundred million (Table D-43). This risk level is well below the EPA acceptable excess cancer risk range of $1\text{E-}04$ to $1\text{E-}06$. The risk estimate for CFA-10 is based on the site-wide risk estimate for inhalation of particulates.

6.5.2.2.1.7 CFA-12. The total excess cancer risk for the current occupational worker is $6\text{E-}08$, or six in one hundred million (Table D-43). This risk level is well below the EPA acceptable excess cancer risk range of $1\text{E-}04$ to $1\text{E-}06$. The risk estimate for CFA-12 is based on the site-wide risk estimate for inhalation of particulates.

6.5.2.2.1.8 CFA-13. The total excess cancer risk for the current occupational worker is $9\text{E-}05$, or nine in one hundred thousand (Table D-43). This risk level is well within the EPA acceptable excess cancer risk range of $1\text{E-}04$ to $1\text{E-}06$. Almost all (greater than 99 percent) of the risk estimated for CFA-13 is attributable to external radiation exposure to Ra-226 in soil.

6.5.2.2.1.9 CFA-15. The total excess cancer risk for the current occupational worker is $8\text{E-}05$, or eight in one hundred thousand (Table D-43). This risk level is well within the EPA acceptable excess cancer risk range of $1\text{E-}04$ to $1\text{E-}06$. Almost all (greater than 99 percent) of the risk estimated for CFA-15 is attributable to external radiation exposure to Ra-226 in soil.

6.5.2.2.1.10 CFA-17/47. The total excess cancer risk for the current occupational worker is $6\text{E-}08$, or six in one hundred million (Table D-43). This risk level is well below the EPA acceptable excess cancer risk range of $1\text{E-}04$ to $1\text{E-}06$. The risk estimate for CFA-17/47 is based on the site-wide risk estimate for inhalation of particulates.

6.5.2.2.1.11 CFA-26. The total excess cancer risk for the current occupational worker is $9\text{E-}08$, or nine in one hundred million (Table D-43). This risk level is well below the EPA acceptable excess cancer risk range of $1\text{E-}04$ to $1\text{E-}06$. The risk estimate for CFA-26 is based on the site-wide risk estimate for inhalation of particulates.

6.5.2.2.1.12 CFA-42. The total excess cancer risk for the current occupational worker is $6\text{E-}08$, or six in one hundred million (Table D-43). This risk level is well below the EPA acceptable excess cancer risk range of $1\text{E-}04$ to $1\text{E-}06$. The risk estimate for CFA-42 is based on the site-wide risk estimate for inhalation of particulates.

6.5.2.2.1.13 CFA-46. The total excess cancer risk for the current occupational worker is $6\text{E-}08$, or six in one hundred million (Table D-43). This risk level is well below the EPA acceptable excess cancer risk range of $1\text{E-}04$ to $1\text{E-}06$. The risk estimate for CFA-46 is based on the site-wide risk estimate for inhalation of particulates.

6.5.2.2.1.14 CFA-52. The total excess cancer risk for the current occupational worker is 6E-08, or six in one hundred million (Table D-43). This risk level is well below the EPA acceptable excess cancer risk range of 1E-04 to 1E-06. The risk estimate for CFA-52 is based on the site-wide risk estimate for inhalation of particulates.

6.5.2.2.2 Potential Excess Cancer Risks: Future Occupational Scenario.

Table D-45 presents the site-specific excess cancer risk estimates for the future occupational worker. Risk estimates are shown for each retained site and for each potentially complete exposure pathway identified for the current occupational worker. Potential risks estimated for this receptor at each retained site are discussed in the sections below.

6.5.2.2.2.1 CFA-04. The total excess cancer risk for the future occupational worker is 6E-06, or six in one million (Table D-45). This risk level is well within the EPA acceptable excess cancer risk range of 1E-04 to 1E-06. Most of the total excess cancer risk at CFA-04 is associated with three exposure pathways: soil ingestion, dermal contact with soil, and external radiation exposure. These pathways contribute roughly 46, 25, and 27 percent, respectively, to the total risk assessment. Almost all of the risk associated with the soil exposure pathways is attributable to arsenic. Over 50 percent of the risk associated with the external exposure pathway is attributable to U-238.

As discussed in Sections 4.1.3 and 6.2.3, arsenic is not associated with known waste producing processes at WAG 4; however, arsenic is retained as a COPC for CFA-04 because the maximum detected concentration slightly exceeds the range of measured background concentrations at the INEEL. Past waste producing activities at CFA-04 may have resulted in concentrating naturally occurring levels of arsenic at this site; potential risks from arsenic estimated for this site are likely attributable to background levels.

6.5.2.2.2.2 CFA-05. The total excess cancer risk for the future occupational worker is 6E-08, or six in one hundred million (Table D-45). This risk level is well below the EPA acceptable excess cancer risk range of 1E-04 to 1E-06. The risk estimate for CFA-05 is based on the site-wide risk estimate for inhalation of particulates.

6.5.2.2.2.3 CFA-07. The total excess cancer risk for the future occupational worker is 6E-08, or six in one hundred million (Table D-45). This risk level is well below the EPA acceptable excess cancer risk range of 1E-04 to 1E-06. The risk estimate for CFA-05 is based on the site-wide risk estimate for inhalation of particulates.

6.5.2.2.2.4 CFA-08D. The total excess cancer risk for the future occupational worker is 2E-04, or two in ten thousand (Table D-45). This risk level slightly exceeds the EPA acceptable excess cancer risk range of 1E-04 to 1E-06. Almost all of the risk (greater than 99 percent) estimated for CFA-08D is attributable to external radiation exposure to Cs-137 in soil. This risk estimate indicates that under the future occupational exposure scenario, remediation is warranted for CFA-08D.

6.5.2.2.2.5 CFA-08STP. The total excess cancer risk for the future occupational worker is 6E-08, or six in one hundred million (Table D-45). This risk level is well below the EPA acceptable excess cancer risk range of 1E-04 to 1E-06. The risk estimate for CFA-08STP is based on the site-wide risk estimate for inhalation of particulates.

6.5.2.2.2.6 CFA-10. The total excess cancer risk for the future occupational worker is 6E-08, or six in one hundred million (Table D-45). This risk level is well below the EPA acceptable

excess cancer risk range of $1\text{E-}04$ to $1\text{E-}06$. The risk estimate for CFA-10 is based on the site-wide risk estimate for inhalation of particulates.

6.5.2.2.2.7 CFA-12. The total excess cancer risk for the future occupational worker is $6\text{E-}08$, or six in one hundred million (Table D-45). This risk level is well below the EPA acceptable excess cancer risk range of $1\text{E-}04$ to $1\text{E-}06$. The risk estimate for CFA-12 is based on the site-wide risk estimate for inhalation of particulates.

6.5.2.2.2.8 CFA-13. The total excess cancer risk for the future occupational worker is $9\text{E-}05$, or nine in one hundred thousand (Table D-45). This risk level is well within the EPA acceptable excess cancer risk range of $1\text{E-}04$ to $1\text{E-}06$. Almost all (greater than 99 percent) of the risk estimated for CFA-13 is attributable to external radiation exposure to Ra-226 in soil.

6.5.2.2.2.9 CFA-15. The total excess cancer risk for the future occupational worker is $9\text{E-}05$, or nine in one hundred thousand (Table D-45). This risk level is well within the EPA acceptable excess cancer risk range of $1\text{E-}04$ to $1\text{E-}06$. Almost all (greater than 99 percent) of the risk estimated for CFA-15 is attributable to external radiation exposure to Ra-226 in soil.

6.5.2.2.2.10 CFA-17/47. The total excess cancer risk for the future occupational worker is $6\text{E-}08$, or six in one hundred million (Table D-45). This risk level is well below the EPA acceptable excess cancer risk range of $1\text{E-}04$ to $1\text{E-}06$. The risk estimate for CFA-17/47 is based on the site-wide risk estimate for inhalation of particulates.

6.5.2.2.2.11 CFA-26. The total excess cancer risk for the future occupational worker is $6\text{E-}08$, or six in one hundred million (Table D-45). This risk level is well below the EPA acceptable excess cancer risk range of $1\text{E-}04$ to $1\text{E-}06$. The risk estimate for CFA-26 is based on the site-wide risk estimate for inhalation of particulates.

6.5.2.2.2.12 CFA-42. The total excess cancer risk for the future occupational worker is $6\text{E-}08$, or six in one hundred million (Table D-45). This risk level is well below the EPA acceptable excess cancer risk range of $1\text{E-}04$ to $1\text{E-}06$. The risk estimate for CFA-42 is based on the site-wide risk estimate for inhalation of particulates.

6.5.2.2.2.13 CFA-46. The total excess cancer risk for the future occupational worker is $6\text{E-}08$, or six in one hundred million (Table D-45). This risk level is well below the EPA acceptable excess cancer risk range of $1\text{E-}04$ to $1\text{E-}06$. The risk estimate for CFA-46 is based on the site-wide risk estimate for inhalation of particulates.

6.5.2.2.2.14 CFA-52. The total excess cancer risk for the future occupational worker is $6\text{E-}08$, or six in one hundred million (Table D-45). This risk level is well below the EPA acceptable excess cancer risk range of $1\text{E-}04$ to $1\text{E-}06$. The risk estimate for CFA-52 is based on the site-wide risk estimate for inhalation of particulates.

6.5.2.2.3 Potential Excess Cancer Risks: Future Residential Scenario. Table D-47 presents the excess cancer risk estimates for the future residential scenario. Risk estimates are shown for each retained site and for each potentially complete exposure pathway identified for the future resident. Potential risks estimated for this receptor at each retained site are discussed in the sections below. The site-wide risk estimates for the groundwater exposure pathways (i.e., ingestion, dermal contact, inhalation of volatiles during) contribute minimally to the total risk estimate; together, these pathways contribute to less than 0.6 percent of the total cancer risk estimate for each site.

6.5.2.2.3.1 CFA-04. The total excess cancer risk for the future residential scenario is 4E-05, or four in one hundred thousand (Table D-47). This risk level is within the EPA acceptable excess cancer risk range of 1E-04 to 1E-06. Approximately 65 percent of the total excess cancer risk at CFA-04 is associated with soil ingestion. Arsenic contributes to almost all of the estimated risks from soil ingestion. Dermal contact with soil, ingestion of homegrown produce, and external radiation exposure comprise most of the remainder of the total site risks (approximately 11, 7, and 17 percent, respectively).

As discussed in Sections 4.1.3 and 6.2.3, arsenic is not associated with known waste producing processes at WAG 4; however, arsenic is retained as a COPC for CFA-04 because the maximum detected concentration slightly exceeds the range of measured background concentrations at the INEEL. Past waste producing activities at CFA-04 may have resulted in concentrating naturally occurring levels of arsenic at this site; potential risks from arsenic estimated for this site are likely attributable to background levels.

6.5.2.2.3.2 CFA-05. The total excess cancer risk for the future residential scenario is 1E-07, or one in ten million (Table D-47). This risk level is below the EPA acceptable excess cancer risk range of 1E-04 to 1E-06. The majority of the risk estimate (greater than 99 percent) for CFA-05 is based on the site-wide risk estimate for inhalation of particulates.

6.5.2.2.3.3 CFA-07. The total excess cancer risk for the future residential scenario is 1E-07, or one in ten million (Table D-47). This risk level is below the EPA acceptable excess cancer risk range of 1E-04 to 1E-06. The majority of the risk estimate (greater than 99 percent) for CFA-07 is based on the site-wide risk estimate for inhalation of particulates.

6.5.2.2.3.4 CFA-08D. The total excess cancer risk for the future residential scenario is 4E-04, or four in ten thousand (Table D-47). This risk level exceeds the EPA acceptable excess cancer risk range of 1E-04 to 1E-06. The majority of the risk estimate (greater than 99 percent) for CFA-08D is attributable to external radiation exposure to Cs-137 in soil. This risk estimate indicates that under the future residential exposure scenario, remediation is warranted for CFA-08D.

6.5.2.2.3.5 CFA-08STP. The total excess cancer risk for the future residential scenario is 1E-07, or one in ten million (Table D-47). This risk level is below the EPA acceptable excess cancer risk range of 1E-04 to 1E-06. The majority of the risk estimate (greater than 99 percent) for CFA-08STP is based on the site-wide risk estimate for inhalation of particulates.

6.5.2.2.3.6 CFA-10. The total excess cancer risk for the future residential scenario is 1E-07, or one in ten million (Table D-47). This risk level is below the EPA acceptable excess cancer risk range of 1E-04 to 1E-06. The majority of the risk estimate (greater than 99 percent) for CFA-10 is based on the site-wide risk estimate for inhalation of particulates.

6.5.2.2.3.7 CFA-12. The total excess cancer risk for the future residential scenario is 6E-04, or six in ten thousand (Table D-47). This risk level exceeds the EPA acceptable excess cancer risk range of 1E-04 to 1E-06. The majority of the risk estimate (greater than 98 percent) for CFA-12 is attributable to external radiation exposure to Cs-137 present in fractures of the basalt at a depth of 2.6 m (8.5 ft). This risk estimate indicates that under the future residential exposure scenario, remediation may be warranted for CFA-12. However, as described in Section 4 (Nature and Extent of Contamination), it is important to note that soils at CFA-12 have been remediated and that any residual contamination that exists at the site is in the basalt.

6.5.2.2.3.8 CFA-13. The total excess cancer risk for the future residential scenario is $6\text{E-}04$, or six in ten thousand (Table D-47). This risk level exceeds the EPA acceptable excess cancer risk range of $1\text{E-}04$ to $1\text{E-}06$. The majority of the risk estimate (greater than 97 percent) for CFA-13 is attributable to external radiation exposure to Ra-226 in soil. This risk estimate indicates that under the future residential exposure scenario, additional remediation is warranted for CFA-13.

6.5.2.2.3.9 CFA-15. The total excess cancer risk for the future residential scenario is $4\text{E-}04$, or four in ten thousand (Table D-47). This risk level exceeds the EPA acceptable excess cancer risk range of $1\text{E-}04$ to $1\text{E-}06$. The majority of the risk estimate (greater than 99 percent) for CFA-13 is attributable to external radiation exposure to Ra-226 in soil. This risk estimate indicates that under the future residential exposure scenario, additional remediation is warranted for CFA-15.

6.5.2.2.3.10 CFA-17/47. The total excess cancer risk for the future residential scenario is $1\text{E-}07$, or one in ten million (Table D-47). This risk level is below the EPA acceptable excess cancer risk range of $1\text{E-}04$ to $1\text{E-}06$. The majority of the risk estimate (greater than 99 percent) for CFA-17/47 is based on the site-wide risk estimate for inhalation of particulates.

6.5.2.2.3.11 CFA-26. The total excess cancer risk for the future residential scenario is $1\text{E-}07$, or one in ten million (Table D-47). This risk level is below the EPA acceptable excess cancer risk range of $1\text{E-}04$ to $1\text{E-}06$. The majority of the risk estimate (greater than 99 percent) for CFA-26 is based on the site-wide risk estimate for inhalation to particulates.

6.5.2.2.3.12 CFA-42. The total excess cancer risk for the future residential scenario is $1\text{E-}07$, or one in ten million (Table D-47). This risk level is below the EPA acceptable excess cancer risk range of $1\text{E-}04$ to $1\text{E-}06$. The majority of the risk estimate (greater than 99 percent) for CFA-42 is based on the site-wide risk estimate for inhalation to particulates.

6.5.2.2.3.13 CFA-46. The total excess cancer risk for the future residential scenario is $1\text{E-}07$, or one in ten million (Table D-47). This risk level is below the EPA acceptable excess cancer risk range of $1\text{E-}04$ to $1\text{E-}06$. The majority of the risk estimate (greater than 99 percent) for CFA-46 is based on the site-wide risk estimate for inhalation to particulates.

6.5.2.2.3.14 CFA-52. The total excess cancer risk for the future residential scenario is $1\text{E-}07$, or one in ten million (Table D-47). This risk level is below the EPA acceptable excess cancer risk range of $1\text{E-}04$ to $1\text{E-}06$. The majority of the risk estimate (greater than 99 percent) for CFA-52 is based on the site-wide risk estimate for inhalation to particulates.

6.5.2.2.4 Potential Noncancer Risks: Current and Future Occupational Scenarios. Tables D-44 and D-46 present the noncancer risk estimates (i.e., hazard indices) for the current and future occupational workers. The noncancer risk estimates for these two potential receptors are identical because it is assumed that chemical degradation of nonradionuclides does not occur. Noncancer risk estimates are shown for each retained site and for each potentially complete exposure pathway identified for the current and future occupational workers.

6.5.2.2.4.1 CFA-04. The total estimated HI for CFA-04 for current and future occupational workers is 0.7 (Tables D-44 and D-46). This HI is below the EPA threshold HI of 1.0. Almost all of the estimated HI (greater than 98 percent) is associated with incidental ingestion of mercury in soil.